



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/824,562

04/15/2004

Makoto Tsugita

FP-1172 US

6544

21254 7590 08/30/2007
MCGINN INTELLECTUAL PROPERTY LAW GROUP, PLLC
8321 OLD COURTHOUSE ROAD
SUITE 200
VIENNA, VA 22182-3817

EXAMINER

CHEN, CHIA WEI A

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

08/30/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/824,562	Applicant(s) TSUGITA ET AL.	
	Examiner Chia-Wei A. Chen	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 4/15/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/15/2004</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

1. The references listed on the Information Disclosure Statement filed on 4/15/2004 have been considered by the examiner (see attached PTO/SB/08).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niikawa (US 7,075,569 B2) in view of Matherson et al. (US 7,233,352 B2).

As to claim 1, Niikawa teaches, in figure 13, a digital camera (1) for photo-electrically transducing an image of an object field formed by an image pick-up lens (30) into an image signal representing the object field, comprising:

- an image sensor (303) for generating an image signal representing the image of the object field formed (col. 5, lines 57-61);
- a signal processor (120) for processing the image signal to produce image data (col. 7, lines 47-52);

Art Unit: 2622

- an output circuit (122) for outputting the image data produced (col. 7, lines 57-60);
- a controller (150) responsive to operating information for controlling said image sensor, said signal processor and said output circuit for generating a shading correction condition and a white balance adjustment condition for correcting the image signal (col. 15, lines 12-16, Fig. 13);
- a storage (shading ROM 153, ROM 151) for storing the adjustment and correction conditions (correction conditions stored in correction tables; col. 8, lines 24-25); and
- an operating unit (keyboard 63) for receiving the operating information corresponding to an operation by an operator (col. 22, lines 1-4);
- said controller producing, upon recognition that the operating information commands manual white balance adjustment controlling calibration imaging for imaging an object placed in front of the image pick-up lens, generating the shading correction condition and the white balance adjustment condition for correcting the image signal to be generated at a time of actual imaging, and causing the produced correction conditions to be stored in said storage (col. 21, line 61-col. 22, line 4);
- said controller reading out, when commanding the actual imaging to cause the generated image signal to be processed by said signal processor, the shading correction condition and the white balance adjustment condition stored in said storage to send out the read-out correction conditions to said signal processor (col. 8, lines 22-31);
- said signal processor correcting shading of the image signal for the actual imaging, in accordance with the shading condition supplied from said controller, and also correcting white balance of the image signal for the actual imaging, in accordance with the white balance adjustment condition supplied from said controller (circuits 123 and 124 in the

Art Unit: 2622

signal processor 120 perform shading correction and white balance correction; col. 7, line 64-col. 8, line 4; col. 8, lines 46-54);

but does not teach wherein the image adjustment is based on the image signal generated by said image sensor at a time of the calibration imaging.

Matherson et al. teaches wherein the image adjustment is based on the image signal generated by said image sensor at a time of the calibration imaging (characteristic planes are determined with a white calibration source; col. 3, lines 38-47).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the calibration imaging of Matherson et al. with the digital camera of Niikawa in order to correct color-dependent vignetting in the digital camera.

As to claim 2, Niikawa in view of Matherson et al. teaches the digital camera according to claim 1, wherein, in the calibration imaging, said controller produces the shading correction condition associated with a plurality of stop numbers to cause the produced correction condition to be stored in said storage (a correction table is manually designated by entering a focal length and an f-number; col. 21, line 61-col. 22, line 4; col. 8, line 24 of Niikawa).

As to claim 3, Niikawa in view of Matherson et al. teaches the digital camera according to claim 2, wherein said controller reads out the shading correction condition, associated with the stop number used in the actual imaging, from said storage, to send out the read-out correction condition to said signal processor (col. 8, lines 22-31 of Niikawa).

As to claim 4, Niikawa in view of Matherson et al. teaches the digital camera according to claim 1, wherein said controller in the calibration imaging produces the white balance adjustment

Art Unit: 2622

condition associated with a plurality of stop numbers to cause the produced correction condition to be stored in said storage (a correction table is manually designated by entering a focal length and an f-number; col. 21, line 61-col. 22, line 4; col. 8, line 24 of Niikawa).

As to claim 5, Niikawa in view of Matherson et al. teaches the digital camera according to claim 4, wherein said controller reads out the white balance adjustment condition, associated with the stop number used at the time of the actual imaging, from said storage, to send out the read-out correction condition to said signal processor (col. 8, lines 46-51 of Niikawa).

As to claims 6-10, these claims only differ from claims 1-5 in that claims 1-5 are apparatus claims whereas claims 6-10 are a method. Thus, the method of claims 6-10 is analyzed as previously discussed in claims 1-5.

Conclusion

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Suzuki et al. (US 5,602,412) discloses an imaging device which adjusts the ratio of color excitation values produced by an image pickup element in accordance with an exit pupil position and the size of an aperture.

Pine (US 2002/0071041 A1) discloses an enhanced resolution mode using color image capture device.

Yanof et al. (US 7,236,190 B2) discloses digital image processing using white balance and gamma correction.

Chang et al. (US 2004/0064019 A1) discloses an endoscope assembly useful with a scope-sensing light cable.

Art Unit: 2622

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chia-Wei A. Chen whose telephone number is 571-270-1707. The examiner can normally be reached on Monday - Friday, 7:30 - 17:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NgocYen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

cc
8/23/07



NGOC-YEN VU
SUPERVISORY PATENT EXAMINER